

What is claimed is:

1. A multiple beam scanning device for scanning a plurality of light beams across a light receiving member, the multiple beam scanning device comprising:

5 an array light source including a plurality of a sub-array light sources, each sub-array light source emitting a plurality of light beams with independently modulated light intensity; and

10 an optical unit that converges the light beams emitted from any one of the sub-array light sources and simultaneously scans the light beams in parallel and with equidistant spacing across the light receiving member.

2. The multiple beam scanning device as claimed in claim 1, further comprising:

15 a detection unit that detects when a presently-used sub-array light source of the plurality of sub-array light sources is defective, the presently-used sub-array light source presently emitting the plurality of light beams to be scanned by the optical unit; and

20 a switching unit that switches a sub-array light source to use from the presently-used sub-array light source to a different one of the plurality of sub-array light sources when the detection unit detects that the presently-used sub-array light source is defective.

25 3. The multiple beam scanning device as claimed in

claim 2, wherein the detection unit includes a light detection unit that detects light intensity of each light beam emitted from the presently-used sub-array light source, the detection unit detecting that the presently-used sub-array light source is defective when the light detection unit detects that the light intensity of at least one of the plurality of light beams emitted from the presently-used sub-array light source is outside a predetermined range.

4. The multiple beam scanning device as claimed in claim 1, wherein the array light source further includes a common base for all of the sub-array light sources, each of the sub-array light sources including the same number of semi-conductor lasers formed integrally on the common base.

5. The multiple beam scanning device as claimed in claim 4, wherein the semi-conductor lasers of each sub-array light source are arranged in a first direction, and the sub-array light sources are arranged in a second direction perpendicular to the first direction.

6. A multiple beam scanning device for scanning a plurality of light beams across a light receiving member, the multiple beam scanning device comprising:

an array light source including a plurality of a sub-array light sources, each sub-array light source emitting a plurality of light beams with independently modulated light intensity;

a selection unit that selects one of the sub-array light sources; and

a drive unit that drives the selected one of the sub-array light sources to emit the light beams, wherein the selection unit connects the selected sub-array light source to the drive unit.

7. The multiple beam scanning device as claimed in claim 6, further comprising a detection unit that detects when the selected sub-array light source is defective, wherein the selection unit selects a different one of the sub-array light sources when the detection unit detects that the currently selected sub-array light source is defective.

8. The multiple beam scanning device as claimed in claim 6, wherein the array light source further includes a common base for all of the sub-array light sources, each of the sub-array light sources including the same number of semi-conductor lasers formed integrally on the common base.

9. An image output device comprising:

a light receiving member; and

the multiple beam scanning device of claim 1.

10. The image output device as claimed in claim 9, wherein the multiple beam scanning device further includes:

a detection unit that detects when a presently-used sub-array light source of the plurality of sub-array light sources is defective, the presently-used sub-array light

source presently emitting the plurality of light beams to be scanned by the optical unit; and

a switching unit that switches a sub-array light source to use from the presently-used sub-array light source to a different one of the plurality of sub-array light sources when the detection unit detects that the presently-used sub-array light source is defective.

11. The image output device as claimed in claim 10, wherein the detection unit includes a light detection unit that detects light intensity of each light beam emitted from the presently-used sub-array light source, the detection unit detecting that the presently-used sub-array light source is defective when the light detection unit detects that light intensity of at least one of the plurality of light beams emitted from the presently-used sub-array light source is outside a predetermined range.

12. The image output device as claimed in claim 9, wherein the array light source further includes a common base for all of the sub-array light sources, each of the sub-array light sources including the same number of semiconductor lasers formed integrally on the common base.

13. An image output device comprising:

a light receiving member; and

the multiple beam scanning device of claim 6.

14. The image output device as claimed in claim 13,

wherein the multiple beam scanning device further includes a detection unit that detects when the selected sub-array light source is defective, and the selection unit selects a different one of the sub-array light sources when the
5 detection unit detects that the currently selected sub-array light source is defective.